REMARKS

Claims 1-11 remain pending in the application.

In the Final Office Action, the Examiner rejected claims 1 and 7-9 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Number 6,597,807 to Watkins et al.

Claims 2-4 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Watkins et al. in view of U.S. Patent Number 6,396,946 to Sogawa.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Watkins et al. in view of Sogawa and further in view of U.S. Patent Number 6,640,130 to Freeman et al.

Claims 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Watkins et al. in view of U.S. Patent Number 5,129,010 to Higuchi et al.

In view of the arguments that follow, Applicants respectfully traverse the Examiner's rejection of claims 1 - 11.

Rejection Under 35 U.S.C. § 102(e)

The Examiner has rejected claims 1 and 7-9 under 35 U.S.C. § 102(e) as being anticipated by Watkins et al. The rejection is respectfully traversed.

With respect to independent claim 1, the Examiner alleged that Watkins et al. disclose the recitations of the claim. Specifically, the Examiner alleged that Watkins et al. disclose overlaying registered stereo pair imagery from the right and left infrared cameras and the right and left visible light cameras, by referencing the abstract, and col. 2, lines 32-

35. The Examiner alleged that such disclosure synthesizes data output from the right and left infrared cameras creating a three-dimensional thermal image and synthesizing data output from the right and left visible light cameras creating a three-dimensional visible light image and overlapping them.

Applicants respectfully submit that there is nothing in Watkins et al. that disclose an image synthesis apparatus in which "a three-dimensional thermal image and a three-dimensional visible light image are observed by an observer as overlapping each other," as recited in claim 1.

Watkins et al. disclose a plurality of sensors representing different spectral views that includes a first pair of left and right sensors sensitive in the infrared range and a second pair of left and right sensors sensitive in the visible range. A third left and right sensor pair is sensitive in a third spectral range that is different from the first and second spectral ranges (col. 2, lines 32-41). The images from the plurality of sensors merely give different spectral views of the same three-dimensional scene of images. Watkins et al. further disclose Red-Green-Blue (RGB) color coded signals that are assigned to the first, second, and third left and right stereo signals to form a stereo pair simultaneously in near, mid, and far infrared. The RGB color coded signals enhances human object recognition and perception of the images from the plurality of sensors (see col. 2, lines 45-54). Watkins et al. also disclose snapshots, as seen in Figs. 2a-2d, that show an overlay of RGB sensor fusion on top of a standard visible display with the overlay appearing in increasing intensity relative to the visible display of visible color in the scene in which true colors such as red,

yellow, and green in traffic lights and road signs are muted. By muting true colors by the RGB fusion overlay, an observer is able to view road hazards and animal navigation hazard in increased intensity (see col. 5, line 57 – col. 6, line 35).

The overlaying of RGB sensor fusion which mutes red, yellow, and green in traffic lights and road signs so an observer can view road hazards and animal navigation of Watkins et al. is not analogous to "a three-dimensional thermal image and a three-dimensional visible light image" that are "observed by an observer as overlapping each other." Although, the images from the first and second left and right sensors in Watkins et al. are in the infrared range and visible range, respectively, the images are not overlapped, as alleged by the Examiner. Again, the plurality of sensors merely gives different spectral views of the scene. Furthermore, the three-dimensional thermal image and visible light image in the present invention are not overlapped, but are observed by an observer with a perception as overlapping each other.

In view of the reasons given above, the rejection of independent claim 1 should be withdrawn. Applicant also respectfully submit that the rejection of dependent claims 2-9 should be withdrawn for at least the same reasons given above with regard to respective base claim 1.

Rejection Under 35 U.S.C. §103(a)

The Examiner rejected claims 10 and 11 under 35 U.S.C. §103(a) as being unpatentable over Watkins et al. in view of Higuchi et al.

With respect to independent claim 10, the Examiner alleged that Watkins et al. disclose a plurality of infrared cameras provided in a direction substantially perpendicular to a direction in which the infrared is directed toward a subject, by referencing Figure 1, and col. 2, lines 32-35. The Examiner also alleged that Watkins et al. further disclose registering stereo pair imagery from the right and left infrared cameras which in other words synthesizing data output from the right and left infrared cameras creating a three-dimensional thermal image by referencing the abstract, and col. 2, lines 13-43. According to the Examiner, Watkins et al. disclose an image synthesis processing device for synthesizing a plurality of thermal image data output from the plurality of infrared cameras so as to generate three-dimensional image data.

The Examiner admits that Higuchi et al. is not relied on for teaching an image synthesis processing device. However, to cure the deficiencies of Watkins et al., the Examiner alleged that Higuchi et al. teaches that it is known to use a slit device including a plurality of slits and an infrared directing device for directing infrared toward a subject through the slit device, by referencing col. 1, lines 17-31.

Applicants respectfully submit that neither Watkins et al. nor Higuchi et al., taken singly or in combination, disclose or suggest "a slit device including a plurality of slits;" and an "infrared directing device for directing infrared toward a subject through the slit device," as recited in claim 10.

Again, Watkins et al. merely disclose using first and second left and right sensors in infrared range and visible range to obtain different spectral views of a three-dimensional

scene. RGB fusion overlay is used on visible color on the three-dimensions scene to mute true colors such as red, yellow, and green in traffic lights and road signs. By muting true colors by the RGB fusion overlay, an observer is able to view road hazards and animal navigation hazard in increased intensity. However, there is nothing in Watkins et al. that discloses "a slit device including a plurality of slits" in which infrared is directed "toward a subject through the slit device."

Higuchi et al. do not cure the deficiencies of Watkins et al. Higuchi et al. merely disclose a system for measuring three-dimensional shapes and dimensions by using a television camera or a plurality of television cameras with a **slit light source** of an imaging unit, which reflects a surface shape, flushness and gap in a specified region of an object. The system of Higuchi et al. generates the measurements of the shapes and dimensions of an object from the slit light source. The light source of Higuchi et al. produces and projects a slit light on an object and does not direct infrared through a **slit device** to produce a thermal image. Moreover, there is nothing in the invention of Higuchi et al. that disclose or teach a "slit device" that includes a plurality of slits.

Applicants also respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings. Second, the proposed modification of the prior art must have had a reasonable expectation of succeeding, as

determined from the vantage point of such a skilled artisan at the time the invention was made. Third, the prior art references, when combined, must teach or suggest all the claim limitations. *See* M.P.E. P. §2143.

In view of the above reasons, Applicant respectfully submits that the asserted combination of Higuchi et al. and Watkins et al fails to establish a *prima facie* case of obviousness of independent claim 10, or any claim depending therefrom. Accordingly, the rejection of independent claim 10 should be withdrawn. The rejection of dependent claim 11 should be withdrawn for at least the same reasons given above with regard to respective base claim 10.

Conclusion

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Demetra R. Smith-Stewart (Reg. No. 47,354), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1. 17; particularly, extension of time fees.

Respectfully submitted,

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